

# State Data Center Cost Allocation Plan Fiscal Year 2021



The Cost Allocation Plan is the State of Missouri's initiative to develop a cost-based method to establish billing rates for Information Technology services and products. The Cost Allocation Plan works to ensure State of Missouri IT services are provided in a cost effective manner.

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## Introduction

The State Data Center's Cost Allocation Plan was developed to establish a cost-based recovery method for the State's Information Technology Services. The benefits of the CAP are twofold. First, the CAP allows for a full-cost recovery process of SDC services. Both, direct and indirect costs, are included in the full-cost recovery to minimize under or over recovery of the SDC's total budgeted costs. Secondly, each customer is treated in an equitable manner, based on the resources used by that customer.

This document will provide the methodology used for determining the rates billed, an explanation of terms used, summarized anticipated personnel expenses, itemized estimated expenditures for the SDC, a summarized list of the costs per service with the rate calculation, an estimated billing based on utilization per customer, and a rate comparison of the current year and the preceding four years.

## Methodology

To develop the CAP, the following components were analyzed to establish the final SDC CAP rates.

- **Determination of the Rate Category for Services Provided:** All services provided to the customer by the SDC are identified and approved by the Chief Information Officer (CIO).
- **Units of Service:** The unit of service used to measure the volume of the service provided by each CAP item is established based on three criteria.
  - The relationship to the function performed
  - The measurability
  - The controllability by the customer
- **Compilation of the Estimated Utilization by Customer:** For each CAP item, the utilization by customer is compiled and totaled to develop the basis for the billing rate computation.
- **Identify the Type of Cost:** There are two types of costs identified in the CAP, allocated direct and allocated indirect costs. Allocated direct costs are associated with personnel and equipment costs that can be directly identified based on the type of service. Allocated indirect costs are related to support costs for services provided by the SDC and cannot be identified by a specific type of service.
- **Determine the Allocated Direct Cost:** Allocated direct costs are those costs budgeted for personnel, equipment or other expenses that can be directly identified with providing a specific service. These costs are accumulated to determine the total allocated direct costs associated with each type of service provided.
- **Determine the Allocated Indirect Cost:** Allocated indirect costs are those costs budgeted that are not associated with a specific service. These costs are accumulated to determine the total allocated indirect costs and prorated across each type of service provided.
- **Summarization of the Total Costs by Service:** The summarized total cost by service is determined by adding both direct and indirect allocated costs with job costs.
- **Calculated Rate per Unit of Service:** The rate per unit of service is calculated by dividing the total annual cost by the total estimated annual utilization.

**State Data Center  
Budget Summary**

	<b>FY20 CAP</b>	<b>FY21 CAP</b>
Personal Services	6,302,575	6,378,158
Employee Benefits	2,817,296	3,422,896
Expense and Equipment	29,475,852	31,035,594
Total Budgeted Costs	38,595,723	40,836,648

<b>Number</b>	<b>Description</b>	<b>FY20 CAP</b>	<b>FY21 CAP</b>
	Personal Services	6,302,575	6,378,158
	Fringe Benefits	2,817,296	3,422,896
	<b>Total Personal Services and Fringe Benefits</b>	<b>9,119,870</b>	<b>9,801,055</b>
103	CPU	750,000	1,023,235
106	DASD Growth	445,116	303,799
107	Deduplication/Replication HW Lease	530,731	802,731
108	Disaster Recovery CPU (Springfield Site)	184,500	160,000
113	SAN DASD	956,232	1,363,025
119	VM Hardware Lease/Purchase	629,741	759,850
120	DR Print Services	100,000	112,760
121	OnBase HealthCheck - HyLand Services		80,000
205	DASD maintenance	43,744	100,500
206	Data Domain Server and Storage Maintenance	136,000	177,560
207	DistSys Backup Admin Servers Maint (TSM Win)	10,000	0
214	External Coupling Facility	30,456	30,456
222	Print Burster/Trimmer/Stacker	110,000	115,000
223	Print Usage	155,000	195,000
224	Printer-Impact	5,000	5,000
225	Printer-Laser	95,000	80,000
229	Remote Server Maintenance	6,000	1,500
231	SAN Sever and Storage Maintenance	286,483	450,200
233	GTX Qualifier Maintenance	3,000	3,000
237	z/OS Virtual Tape	87,450	-
238	VM Server and Storage Maintenance	61,000	44,000
239	Batteries/UPS Maintenance	52,000	193,000
240	Generator Maintenance	2,000	59,000
243	VDI Server Maintenance	20,000	30,000
244	VDI Storage Maintenance	51,000	55,000
245	DistSys SVC Hardware Maint	17,000	42,000
246	QCX E138 MICR Verifier	2,500	
303	Softek TDMF Replicator for zOS	67,000	67,000
305	BMC Mainview	122,470	112,470
306	CICS Transaction Gateway	51,590	59,600
307	CICS/TS V5	952,925	979,850
308	COBOL for MVS	123,300	126,800
309	Mackinney Software	8,480	8,960
311	AFP Toolbox (Toolkit)	3,825	4,590
313	DSF/DSS/HSM	146,000	146,000
321	Interactive Output Facility (IOF)	6,050	6,250
324	WebSphere MQ for Z/OS	360,000	500,450
328	OGI	7,265	8,718
329	OS/390	1,788,337	1,778,884
330	Page Print Format Aid/370 V1 PPFA	5,095	6,114
331	Enterprise PL/1 Alternate Function	113,692	117,000
332	PSF	53,055	63,666

Number	Description	FY20 CAP	FY21 CAP
333	SDF II	36,490	37,520
338	DB2 for Z/OS V9	832,661	973,852
340	Microsoft Server Operating System Subsc.	5,000	
341	UDB - DB2 Utilities Suite	39,455	47,373
342	Symantec EndPoint Protection Subsc. - RSS	5,000	500
343	Antivirus for Exchange	130,000	143,000
344	Vmware vCloud Enterprise Suite	987,828	987,828
345	SiteScan	5,000	5,000
349	Lansweeper	911	28,800
351	Kiwi Syslog	291	300
352	Microsoft System Center Suite	7,500	
353	Solarwinds NPM	9,186	9,700
354	Solarwinds SAM	7,397	7,808
355	Solarwinds NTA	5,536	5,843
356	Orion Polling Engines	68,840	55,000
357	Orion Web Server	101	101
360	IBM SKLM encryption licenses	2,510	3,012
361	Splunk Logging	170,000	104,127
363	EMC Software ELA	482,000	488,288
364	Solarwinds WPM	3,450	3,300
365	Enhanced ACIF	5,610	6,732
401	Axceler ControlPoint - SharePoint Internal	26,208	26,500
404	CA Interest W/XA-ESA-Batch	52,967	48,180
405	CA Interest W/XA-ESA-CICS	74,361	107,430
406	CA Librarian	120,129	164,362
408	CA Restart/Recover (CA11)	44,024	3,173
410	CA Scheduling Package (CA7)	129,829	175,192
411	CA TMS (CA1)	68,000	195,000
412	CA UNIPAK	1,197,771	1,231,612
414	Omegamon for CICS	65,603	75,800
415	CL/Supersession for z/OS	68,883	79,600
416	IBM Tivoli Omegamon XE DB2 V4	151,981	182,756
417	IBM Tivoli Omegamon XE z/OS V2	131,206	151,500
419	DB2 Connect	480,376	552,781
420	SEA JCL Plus	23,703	22,574
421	Document Management Systems (MOBIUS)	104,462	182,594
422	Dumpmaster MVS	119,283	122,265
424	Group 1 Software Zip+4	27,400	29,600
427	Red Hat Enterprise\Network Satellite Maint	82,000	110,000
428	Tivoli WAS\ND	168,000	114,696
429	Insync MVS	100,015	102,514
431	Tic Toc	9,150	9,425
433	Symantec EndPoint Protection Subsc. - VM	20,000	20,000
434	Connect:Direct	17,653	20,500
435	Merrill Consultants MXG	2,500	2,500
436	MVS Quick Reference	37,558	38,500
438	DistSys SSL Certificates	2,000	2,200
439	MoveIT Software Maint	13,606	13,978
440	Platinum DB2 Tools	804,982	564,174
443	SAS Base	118,284.92	118,285.00
444	SAS/STAT	82,430.55	82,431.00
445	SAS/ACCESS	79,259.48	79,259.00
446	Rocket Software	25,000.00	25,000.00
447	SAS/ETS	82,430.55	82,431.00
451	SA Licenses for SQL	762,068.00	800,171.00
452	SI SYNC/SORT	33,569.00	33,569.00
453	SynRecovery software	1,000.00	1,000.00
454	SPC Systems Cobol RW Precompiler	3,144.00	3,144.00

Number	Description	FY20 CAP	FY21 CAP
456	Distributed Print Software Maintenance	38,625.00	-
458	DistSys SSRS Software Maintenance	27,000.00	28,000.00
460	Tivoli Storage Management	193,683.23	156,809.00
463	Vanguard Administration	61,040	61,060
467	Load Balancer Maintenance	115,296	
468	SQL	107,625	105,197
469	VMWare Software Maintenance	129,869	229,869
470	Microsoft VDA Licensing (Software Subscription)	534,000	534,000
471	Catalog Recovery Software - zOS Enterprise Data Backup	5,405	5,405
472	SDI TN3270 Emulation	26,000	165,000
473	DB2 Maintenance	702,778	723,396
474	Software - Maintenance Renewals AD	128,000	137,000
477	SAN Software	697,182	689,549
478	Vranger Software Maintenance	25,000	22,000
481	Software -Maintenance Renewals -ShareGate	6,350	6,600
482	Software - Maintenance Renewals SharePoint	3,616	3,800
483	JIRA Software Maintenance plus plugin	14,104	15,483
487	Solimar	37,916	39,054
489	uDeploy software Maintenance	74,425	173,707
490	Rocket software Fast Audit & Catalog audit	27,000	29,000
491	ITSM Tool Maintenance	201,600	124,000
492	Office 365 ProPlus	495,000	592,021
494	Tidal License	44,910	47,985
498	Enterprise OnBase Licenses	240,000	225,000
499	AppViewX Software Maintenance	15,392	15,392
503	Deduplication/Replct Purchase-DistBU-Rcvry	221,450	155,000
510	Servers - AD	48,000	48,000
514	VM Hardware Purchase	356,000	312,125
516	VDI End-Point Device	112,500	100,000
517	VDI Server and Upgrades	215,000	535,000
518	VDI Storage and Upgrades	125,000	125,000
519	DistSys SAN Hardware Upgrade	364,692	308,500
520	z/OS InfoPrint Hardware Purchase	145,000	150,000
529	Exchange Growth	40,000	44,000
530	Enterprise Vault Growth	60,000	66,000
532	NOC - Desktop Computer Equipment	3,200	3,200
533	zOS Data Backup Purchase	458,975	605,725
536	Security Review Audit	30,000	30,000
537	Plesk License Purchase	2,520	5,940
538	Box software subscription	95,591	181,312
539	Scanner for OnBase	12,500	8,400
606	TSM Software Purchase	15,000.00	7,500
607	VM Software Purchase	312,500.00	118,000
608	Vranger License Enhancement	15,000.00	15,000
609	VMWare View Licensing	277,733.00	526,665
618	Microsoft System Center Suite	20,000.00	43,000
620	Foglight license purchase/maintenance	80,000.00	80,000
622	New Enterprise Modules	32,000.00	16,000
633	Exchange Server License Purchase	75,000.00	82,500
634	Enterprise Vault Renewal	215,000.00	236,500
635	*Proofpoint Mail Relay Software (90% of total cost)	505,000.00	555,500
636	Quadrotech Flightdeck PST software	13,000.00	1,430
640	SQL Software	662,477.00	538,633
641	MySQL Software	36,809.00	22,146
644	Tableau License	34,471.00	39,340
645	Additional 26 Client licenses	26,974.00	26,974.00
647	uDeploy additional Agents	15,000.00	-
648	AppViewX additional licenses	508.64	18,009

Number	Description	FY20 CAP	FY21 CAP
654	Rave Texting	25,000	25,000
655	ILMT	3,632	50,000
657	Software Delivery Tool	195,000	51,000
660	SharePoint Server Licenses		450,000
704	Paper	585,000	210,000
706	Printer Supplies	240,000	145,000
802	Consulting Service	120,000	50,000
808	Internet Expenses	55,000	47,000
811	Office Supplies, Equipment and Maintenance	75,000	35,000
812	Pagers & Cell Phones	20,000	20,000
813	Electrical Distribution, Maintenance	20,000	1,000
814	Postage/Inter Agency Mail Delivery	1,500	
816	Racks, Cabinets, Furniture & Building Changes	50,000	50,000
818	S390 SoftwarExcel	114,366	114,966
820	Subscriptions & Publications	1,000	1,000
821	Telephone Service and Equipment	60,000	45,000
822	Training & Professional Development	30,000	50,000
823	Travel	10,000	10,000
824	Resource Oversight	50,000	45,000
825	VPN - Access Charge	3,000	3,000
827	SSL Certificates	2,000	1,000
828	Service Deployment Appliance	20,000	-
829	Shredding	2,000	2,000
830	SAN/NAS Support Line	29,345	55,877
831	Disaster Recovery Rental (Springnet)	495,000	495,000
832	Disaster Recovery Electric (Springnet)	120,000	120,000
835	Contractor Services	50,000	52,500
836	Exchange Training\Travel\Tools for Staff	13,110	5,195
837	FTP Staff Training\Travel\Tools for Staff	1,970	1,200
838	SAN Training\Travel\Tools for Staff	8,000	-
839	SQL Training \Travel\Tools for Staff	50,000	50,000
840	SharePoint Training \Travel\Tools for Staff	27,000	16,600
841	VM Training\Travel\Tools for Staff	21,000	21,000
842	TSM Training\Travel\Tools for Staff	7,500	7,500
845	WAS Training\Travel\Tools for Staff	14,476	5,656
848	MobaXterm, MiniTab (software tools)		5,400
853	SSRS Training\Travel\Tools for Staff	5,973	7,410
857	Compco Software and Billing Expenses	40,000	35,000
858	Fiscal Costs	10,000	12,000
859	CPU Training\Travel\Tools for Staff	20,000	20,000
860	CICS Training\Travel\Tools for Staff	10,000	10,000
863	Watson & Walker Publication	1,336	1,430
869	SSL Training\Travel\Tools for Staff	32,220	5,500
872	NOC Training \Travel\Tools for Staff	40,000	50,360
873	Staff Training	26,200	18,000
874	VDI\Workstation	6,018	2,000
876	Proofpoint consulting/support services	10,000	11,000
880	JIRA Training\Travel\Tools for Staff	6,326	2,300
881	MySQL Training \Travel\Tools for Staff	5,000	8,515
882	DB2 LUW Training\Travel\Tools for Staff	42,694	46,210
883	Tableau Training\Travel\Tools for Staff	3,151	3,360
884	ITSM Training	22,000	22,000
885	Neodynamic Barcode	1,620	2,987
887	BOX Training\Travel\Tools for Staff	7,020	800
888	Professional Services	40,000	40,000
886	Priority Support per server	5,000	4,869

Number	Description	FY20 CAP	FY21 CAP
889	AD Training\Travel\Tools for Staff	8,093	7,568
M01	Encryption Maintenance	7,700	7,700
M03	Tableau (1 Prod - Encryption License - Estimate)	4,826	4,869
M04	Tableau Desktop Maintenance Renewal	790	395
M05	WAS Encryption - Guardium	18,703	81,694
M06	SSRS Encryption- Guardium	603	2,412
M07	DistSys SSL Certificates AD	3,500	3,500
	<b>Total Expenses</b>	<b>28,192,027</b>	<b>30,444,247</b>
	<b>Cost Adjustment</b>		
	Capital Cost	(182,500)	(316,000)
	Depreciation	1,466,325	907,346
	<b>Total Cost Adjustment</b>	<b>1,283,825</b>	<b>591,346</b>
	<b>Total Equipment and Expenses</b>	<b>29,475,852</b>	<b>31,035,594</b>
	<b>Grand Total</b>	<b>38,595,723</b>	<b>40,836,648</b>



**Category 1      Lines/Feet Printed**

Unit of Service		Lines/Feet Printed	
Utilization		57,000,000	57,000,000
Duplex	74%	42,180,000	42,180,000
Simplex		14,820,000	14,820,000
<b>Budgeted Costs</b>		<b>FY20</b>	<b>FY21</b>
Direct Personnel		259,966	265,125
Fringe Benefits		111,643	143,167
<b>Personal Services</b>		<b>371,609</b>	<b>408,292</b>
120	DR Print Services	100,000	112,760
222	Print Burster/Trimmer/Stacker	110,000	115,000
223	Print Usage	155,000	195,000
224	Printer-Impact	5,000	5,000
225	Printer-Laser	95,000	80,000
246	QCX E138 MICR Verifier	2,500	
311	AFP Toolbox (Toolkit)	3,825	4,590
328	OGL	7,265	8,718
330	Page Print Format Aid/370 V1 PPFA	5,095	6,114
332	PSF	53,055	63,666
365	Enhanced ACIF	5,610	6,732
456	Distributed Print Software Maintenance	38,625	
520	z/OS InfoPrint Hardware Purchase	145,000	150,000
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>725,975</b>	<b>747,580</b>
704	Paper	585,000	450,000
706	Printer Supplies	240,000	210,000
<b>Expendable Supplies Total</b>		<b>825,000</b>	<b>660,000</b>
829	Shredding	2,000	2,000
<b>General Support Expense Total</b>		<b>2,000</b>	<b>2,000</b>
Depreciation		99,000	175,000
Capital Purchases		(145,000)	(150,000)
<b>Total Capital Cost</b>		<b>(46,000)</b>	<b>25,000</b>
Dist BU Rec		1,645	1,645
SAN		2,147	2,147
SQL		3,584	3,584
VM		9,637	9,637
<b>Job Costs Total</b>		<b>17,013</b>	<b>17,013</b>
NOC		134,270	117,017
Indirect Cost		136,944	135,926
<b>Indirect Subtotal</b>		<b>271,215</b>	<b>252,944</b>
<b>Total Service Costs</b>		<b>2,166,812</b>	<b>2,112,829</b>
<b>Estimated Revenue</b>		<b>2,166,812</b>	<b>2,112,829</b>
<b>Simplex Rate      30.55% of Service Cost</b>		<b>\$0.0446</b>	<b>\$0.0435</b>
		Per Foot	Per Foot
<b>Duplex Rate</b>		<b>\$0.0357</b>	<b>\$0.0348</b>
		Per Foot	Per Foot
<b>Impact Print (per 1,000) Rate</b>		<b>\$0.5319</b>	<b>\$0.5186</b>

**\*Laser Feet, Duplex Printing and Line Printed:** : Reports printed on the high speed production printers are comprised of lines printed (impact) and/or the feet printed (laser/duplex). A cost is then assessed based on the printed line and/or feet printed.

## Category 2 CPU Service Units

Unit of Service Utilization	CPU Service Units 992,795,138,586	CPU Service Units Factored 1,250,868,186,662
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel	407,755	396,650
Fringe Benefits	165,033	214,191
<b>Personal Services</b>	<b>572,788</b>	<b>610,841</b>
103 CPU	750,000	1,023,235
108 Disaster Recovery CPU (Springfield Site)	184,500	160,000
214 External Coupling Facility	30,456	30,456
305 BMC Mainview	122,470	112,470
308 COBOL for MVS	123,300	126,800
309 Mackinney Software	8,480	8,960
321 Interactive Output Facility (IOF)	6,050	6,250
329 OS/390	1,788,337	1,778,884
331 Enterprise PL/1 Alternate Function	113,692	117,000
404 CA Interest W/XA-ESA-Batch	52,967	48,180
406 CA Librarian	120,129	164,362
408 CA Restart/Recover (CA11)	44,024	3,173
410 CA Scheduling Package (CA7)	129,829	175,192
414 Omegamon for CICS	65,603	75,800
415 CL/Supersession for z/OS	68,883	79,600
417 IBM Tivoli Omegamon XE z/OS V2	131,206	151,500
420 SEA JCL Plus	23,703	22,574
421 Document Management Systems (MOBIUS)	104,462	182,594
422 Dumpmaster MVS	119,283	122,265
424 Group 1 Software Zip+4	27,400	29,600
429 Insync MVS	100,015	102,514
431 Tic Toc	9,150	9,425
434 Connect:Direct	17,653	20,500
435 Merrill Consultants MXG	2,500	2,500
436 MVS Quick Reference	37,558	38,500
443 SAS Base	118,285	118,285
444 SAS/STAT	82,431	82,431
445 SAS/ACCESS	79,259	79,259
447 SAS/ETS	82,431	82,431
452 SI SYNC/SORT	33,569	33,569
454 SPC Systems Cobol RW Precompiler	3,144	3,144
463 Vanguard Administration	61,040	61,060
472 SDI TN3270 Emulation	26,000	165,000
487 Solimar	37,916	39,054
536 Security Review Audit	30,000	30,000
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>4,735,724</b>	<b>5,286,567</b>
818 S390 SoftwarExcel	114,366	114,966
859 CPU Training/Travel/Tools for Staff	20,000	20,000
888 CPU Professional Services	40,000	40,000
863 Watson & Walker Publication	1,336	1,430
<b>General Support Expense Total</b>	<b>175,702</b>	<b>176,396</b>
Depreciation	1,000	-
Capital Purchases		
<b>Total Capital Cost</b>	<b>1,000</b>	<b>-</b>

## Category 2 CPU Service Units

Unit of Service Utilization	CPU Service Units 992,795,138,586	CPU Service Units Factored 1,250,868,186,662
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Budgeted Costs	FY20	FY21
AD	44,358	30,000
Dist BU Rec	13,639	15,000
Print	346	350
Server Support	5,015	3,500
SAN	18,269	17,500
SQL	3,381	800
VDI	10,312	50,000
VM	45,887	45,000
WAS	23,969	3,500
zOS Data BU	171,575	125,000
zOS Data Storage	163,108	200,000
zOS DB2	1,362	-
<b>Job Costs Total</b>	<b>501,220</b>	<b>490,650</b>
NOC	424,035	413,012
Indirect Cost	432,480	479,751
<b>Indirect Subtotal</b>	<b>856,515</b>	<b>892,763</b>
<b>Total Service Costs</b>	<b>6,842,949</b>	<b>7,457,217</b>
<b>Estimated Revenue</b>	<b>6,842,949</b>	<b>7,457,217</b>
<b>Rate</b>	<b>\$0.0069</b>	<b>\$0.0060</b>

Per 1,000 Service Units

**Prime/Peak Time Utilization for CPU will be billed at 100% of the CPU Rate**

**Non-Prime/Off Hours Utilization for CPU will be billed at 75% of the CPU Rate.**

**Low Priority Utilization for CPU will be billed at 65% of the CPU Rate.**

**\*CPU Service Unit:** A mainframe's measurement of the amount of CPU consumption for a job or transaction.

**CPU Priority Adjustment:** CPU Priority Adjustments are based on the batch job priority class defined by the customer and the time of day for TSO usage. Low priority jobs are billed at 75 percent of the normal CPU rate. Low priority jobs are processed during the second and third shifts. Class One jobs are billed at 65 percent of the normal CPU rate. These jobs are processed during weekends and holidays. TSO, CPU, and FOCUS CPU usage during non-prime hours (5pm to 7am) and are billed at 75 percent of the normal CPU rate.

### Category 3 CICS Transactions

Unit of Service Utilization	CICS Transactions 2,044,947,902	CICS Transactions 1,909,093,134
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel	94,529	76,476
Fringe Benefits	42,505	41,297
<b>Personal Services</b>	<b>137,033</b>	<b>117,772</b>
306 CICS Transaction Gateway	51,590	59,600
307 CICS/TS V5	952,925	979,850
324 WebSphere MQ	360,000	500,450
333 SDF II	36,490	37,520
405 CA Interest W/XA-ESA-CICS	74,361	107,430
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>1,475,366</b>	<b>1,684,850</b>
860 CICS Training/Travel/Tools for Staff	10,000	10,000
<b>General Support Expense Total</b>	<b>10,000</b>	<b>10,000</b>
zOS Data BU	8,241	7,000
zOS Data Storage	5,616	6,900
zOS DB2	7,479	8,500
zOS IDMS	35,180	4,040
<b>Job Costs Total</b>	<b>56,516</b>	<b>26,440</b>
NOC	118,922	115,707
Indirect Cost	121,290	134,405
<b>Total Allocated</b>	<b>240,213</b>	<b>250,112</b>
<b>Total Service Costs</b>	<b>1,919,128</b>	<b>2,089,174</b>
<b>Estimated Revenue</b>	<b>1,919,128</b>	<b>2,089,174</b>
<b>Rate</b>	<b>\$0.000938</b>	<b>\$0.001094</b>
	Per Transaction	Per Transaction

**\*CICS Transaction:** A CICS Transaction is a request made at a workstation for a display or storage of information from a mainframe application.

## Category 5      zOS Data Backup GB/Day

Unit of Service Utilization	Backup GB Per Day 171,000,000	Backup GB Per Day 190,000,000
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel	71,394	57,837
Fringe Benefits	32,127	31,232
<b>Personal Services</b>	<b>103,521</b>	<b>89,069</b>
233 GTX Qualifier Maintenance	3,000	3,000
237 z/OS Virtual Tape maintenance	87,450	0
411 CA TMS (CA1)	68,000	195,000
446 Rocket Software	25,000	25,000
471 Catalog Recovery Software - zOS Data Backup	5,405	5,405
533 zOS Data Backup Purchase	458,975	605,725
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>647,830</b>	<b>834,130</b>
Depreciation	38,000	4,167
Capital Purchases		0
<b>Total Capital Cost</b>	<b>38,000</b>	<b>4,167</b>
<b>Job Costs</b>		
AD	37	100
Dist BU Rec	7,487	7,900
SAN	7,919	16,000
SQL	8,083	1,513
VDI	891	5,000
VM	2,575	1,500
zOS Data Storage	896	918
<b>Job Costs Total</b>	<b>27,889</b>	<b>32,931</b>
NOC	57,887	60,418
Indirect	59,040	70,182
<b>Total Allocated</b>	<b>116,927</b>	<b>130,600</b>
<b>Total Service Costs</b>	<b>934,167</b>	<b>1,090,897</b>
<b>Estimated Revenue</b>	<b>934,167</b>	<b>1,090,897</b>
<b>Rate</b>	<b>\$0.00550</b>	<b>\$0.00574</b>
	Per GB Per Day	Per GB Per Day

**\*zOS Enterprise Data Backup:** zOS Enterprise Data Backup: zOS Enterprise Data Backup is the utilization of tape backup storage space in the Mainframe environment. Utilization of storage is measured in gigabytes allocated to backup lpars/data sets.

## Category 7.1 Active Directory

### Unit of Service

		AD Accounts	AD Accounts
Utilization AD User ID		810,396	811,815
<b>Budgeted Costs</b>		<b>FY20</b>	<b>FY21</b>
Direct Personnel		263,454	267,019
Fringe Benefits		121,189	144,190
<b>Personal Services</b>		<b>384,642</b>	<b>411,209</b>
M07	DistSys SSL Certificates	3,500	3,500
474	Software - Maintenance Renewals AD	128,000	137,000
510	Servers - AD	48,000	48,000
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>179,500</b>	<b>188,500</b>
835 Contractor Services		25,000	25,000
889	Training/Travel/Tools for Staff	8,093	7,568
<b>General Support Expense Total</b>		<b>33,093</b>	<b>32,568</b>
Depreciation		0	7,451
Capital Purchases		0	
<b>Total Capital Cost</b>		<b>0</b>	<b>7,451</b>
Job	Dist BU Rec	31,199	32,100
	Srvr Spprt	27,620	19,100
	Remote Server Support		8,200
	Exchange	11,858	500
	VDI	3,622	1,300
	SQL	2,600	3,600
	VM	67,879	73,700
	MainFrame		4,600
<b>Job Costs Total</b>		<b>144,778</b>	<b>143,100</b>
NOC		52,559	49,253
Indirect Cost		53,606	57,212
<b>Indirect Subtotal</b>		<b>106,164</b>	<b>106,464</b>
<b>Total Service Costs</b>		<b>848,178</b>	<b>889,293</b>
<b>Estimated Revenue</b>		<b>848,178</b>	<b>889,293</b>
<b>Rate</b>		<b>\$1.01</b>	<b>\$1.10</b>

**\*Active Directory:** Active Directory (AD) provides a means to securely authenticate users and access network resources, such as file shares, applications, etc.

## Category 7.2 Exchange

Unit of Service	Exchange Users	Exchange Users	
Utilization Exchange	543,096	559,380	
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>	
Direct Personnel	295,477	298,905	
Fringe Benefits	132,965	161,409	
<b>Personal Services</b>	<b>428,442</b>	<b>460,314</b>	
343 Antivirus for Exchange	130,000	143,000	
438 DistSys SSL Certificates	2,000	2,200	
529 Exchange Growth	40,000	44,000	
530 Enterprise Vault Growth	60,000	66,000	
633 Exchange Server License Purchase	75,000	82,500	
634 Enterprise Vault Renewal	215,000	236,500	
635 Proofpoint Mail Relay Software (90% total cost)	505,000	555,500	
636 Quadrotech Flightdeck PST software	13,000	1,430	
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>1,040,000</b>	<b>1,131,130</b>	
835 Exchange Contractor Services	25,000	27,500	
836 Exchange Training/Travel/Tools for Staff	13,110	5,195	
876 Proofpoint/support srvc/hardware replacement	10,000	11,000	
<b>General Support Expense Total</b>	<b>48,110</b>	<b>43,695</b>	
Depreciation	8,299		
Capital Purchases	(10,000)		
<b>Total Capital Cost</b>	<b>(1,701)</b>	<b>-</b>	
Job Costs			
Dist BU Rec	208,794	230,000	
SAN	733,444	806,788	
VDI		2,100	
SQL	84,067	92,000	
VM	271,518	300,000	
<b>Job Costs Total</b>	<b>1,297,823</b>	<b>1,430,888</b>	
NOC	199,229	192,904	
Indirect Cost	203,197	224,075	
<b>Indirect Subtotal</b>	<b>402,426</b>	<b>416,979</b>	
<b>Total Service Costs</b>	<b>3,215,100</b>	<b>3,483,006</b>	
<b>Estimated Revenue</b>	<b>3,215,100</b>	<b>3,483,006</b>	
<b>Rate</b>	<b>\$1.430000</b>	<b>\$5.92</b>	<b>\$6.23</b>

**\*Exchange:** Exchange services are those related to email provided by ITSD. The costs are based on the number of accounts and/or the amount of email stored on the servers.

## Category 8 zOS Data Storage GB/Day

Unit of Service Utilization	zOS Data Storage GB/Day 11,000,000	zOS Data Storage GB/Day 12,300,000
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel	58,408	59,342
Fringe Benefits	26,283	32,045
<b>Personal Services</b>	<b>84,691</b>	<b>91,387</b>
106 DASD Growth	445,116	303,799
205 DASD maintenance	43,744	100,500
303 Softek TDMF Replicator for zOS	67,000	67,000
313 DSF/DSS/HSM	146,000	146,000
360 IBM SKLM encryption licenses	2,510	3,012
490 Rocket SW Fast Audit & Catalog	27,000	29,000
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>731,370</b>	<b>649,311</b>
NOC	57,804	46,602
Indirect Cost	58,955	54,133
<b>Total Allocated</b>	<b>116,759</b>	<b>100,735</b>
<b>Total Service Costs</b>	<b>932,820</b>	<b>841,432</b>
<b>Estimated Revenue</b>	<b>932,820</b>	<b>841,432</b>
<b>Rate</b>	<b>\$0.0850</b>	<b>\$0.0684</b>
	Per GB Per Day	Per GB Per Day

**\*zOS Data Storage:** zOS Data Storage provides direct access storage for mainframe data. Utilization of storage is measured in gigabytes allocated to lpars/data sets.



## Category 10 zOS IDMS

Unit of Service	zOS IDMS	zOS IDMS
<b>Utilization</b>	<b>376,758,672</b>	<b>502,108,476</b>
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel	77,955	105,168
Fringe Benefits	35,080	56,791
<b>Personal Services</b>	<b>113,035</b>	<b>161,959</b>
412 CA UNIPAK	1,197,771	1,231,612
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>1,197,771</b>	<b>1,231,612</b>
Print	49	26
zOS Data BU	808	854
zOS Data Storage	9,633	9,676
<b>Job Costs Total</b>	<b>10,491</b>	<b>10,556</b>
NOC	93,591	88,343
Indirect Cost	95,455	102,618
<b>Total Allocated</b>	<b>189,046</b>	<b>190,961</b>
<b>Total Service Costs</b>	<b>1,510,342</b>	<b>1,595,088</b>
<b>Estimated Revenue</b>	<b>1,510,342</b>	<b>1,595,088</b>
<b>Rate</b>	<b>\$0.0040</b>	<b>\$0.0032</b>
	Per Run Unit	Per Run Unit

**\*zOS IDMS:** zOS IDMS is a CA/Broadcom mainframe hierarchical relational database solution that provides an agency the ability to store its business data for later retrieval and decision making. zOS IDMS Service Unit is a measurement of the amount of system resources a process in IDMS uses to complete its request.

## Category 11 zOS DB2

Unit of Service	zOS DB2 Service Units	zOS DB2 Service Units
<b>Utilization</b>	<b>811,872,311,186</b>	<b>612,925,786,000</b>
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel	216,029	199,432
Fringe Benefits	97,213	107,693
<b>Personal Services</b>	<b>313,242</b>	<b>307,125</b>
338 DB2 for Z/OS V9	832,661	973,852
341 UDB - DB2 Utilities Suite	39,455	47,373
416 IBM Tivoli Omegamon XE DB2 V4	151,981	182,756
419 DB2 Connect	480,376	552,781
440 Platinum DB2 Tools	804,982	564,174
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>2,309,455</b>	<b>2,320,936</b>
zOS Data BU	3,000	16,444
zOS Data Storage	21,000	21,492
<b>Job Costs Total</b>	<b>24,000</b>	<b>37,936</b>
NOC	187,473	167,735
Indirect Cost	191,206	194,840
<b>Total Allocated Cost</b>	<b>378,679</b>	<b>362,575</b>
<b>Total Service Costs</b>	<b>3,025,376</b>	<b>3,028,572</b>
<b>Estimated Revenue</b>	<b>3,025,376</b>	<b>3,028,572</b>
<b>Rate</b>	<b>\$0.0037</b>	<b>\$0.0049</b>
	Per 1,000 Service Units	Per 1,000 Service Units

**\*zOS DB2:** zOS DB2 is a IBM mainframe relational database solution that provides an agency the ability to store its business data for later retrieval and decision making.

The DB2 Service Unit is a measurement of the amount of system resources a process in DB2 uses to complete its request.

## Category 15 VM

Unit of Service	VM	VM
<b>Utilization</b>	<b>30,600</b>	<b>31,200</b>
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel	359,096	340,706
Fringe Benefits	161,593	183,981
<b>Personal Services</b>	<b>520,689</b>	<b>524,687</b>
119 VM Hardware Purchase Lease	629,741	759,850
238 VM Server and Storage Maintenance	61,000	44,000
344 Vmware vCloud Enterprise Suite	987,828	987,828
427 Red Hat Enterprise/Network Satellite Maint	82,000	110,000
433 Symantec EndPoint Protection Subsc. - VM	20,000	20,000
514 VM Hardware Purchase	356,000	312,125
607 VM Software Purchase	312,500	118,000
620 Foglight license purchase/maintenance	80,000	80,000
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>2,529,069</b>	<b>2,431,803</b>
807 IBM Server Support Line		
841 VM Training/Travel/Tools for Staff	21,000	21,000
<b>General Support Expense Total</b>	<b>21,000</b>	<b>21,000</b>
Depreciation	236,000	123,018
Capital Purchases		0
<b>Total Capital Cost</b>	<b>236,000</b>	<b>123,018</b>
<b>Estimated Extra CPU Revenue</b>	(280,000)	(300,000)
<b>Estimated Extra Memory Revenue</b>	(1,400,000)	(1,400,000)
Dist BU Rec	9,948	14,000
MySQL	535	-
SAN	64,254	56,000
SQL	25,347	18,000
AD		1,000
Server Support	7,235	5,000
<b>Job Costs Total</b>	<b>107,318</b>	<b>94,000</b>
NOC	241,828	200,987
Indirect Cost	246,644	233,465
<b>Total Service Costs</b>	<b>2,222,549</b>	<b>1,928,960</b>
<b>Estimated Revenue</b>	<b>2,222,549</b>	<b>1,928,960</b>
<b>Rate</b>	<b>\$72.63</b>	<b>\$61.83</b>
	Per Image/Month	Per Image/Month

Additional charge of \$4.00 per Month extra for every one (1) GB of memory over 2 GB.

Additional charge of \$7.00 per Month extra for every one (1) additional virtual CPU over 3 vCPUs.

**\*Virtual Machine (VM):** A VM is a virtualized server, which allows multiple VM's to run on a single physical host.

## Category 16 SAN

Unit of Service Utilization		SAN 17,500,000	SAN 20,000,000
<b>Budgeted Costs</b>		<b>FY20</b>	<b>FY21</b>
Direct Personnel		99,472	107,510
Fringe Benefits		44,763	58,055
<b>Personal Services</b>		<b>144,235</b>	<b>165,565</b>
113	SAN DASD	956,232	1,363,025
231	SAN Sever and Storage Maintenance	286,483	450,200
245	DistSys SVC Hardware Maint	17,000	42,000
477	SAN Software	697,182	689,549
519	DistSys SAN Hardware Upgrade	364,692	308,500
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>2,321,589</b>	<b>2,853,274</b>
830	SAN/NAS Support Line	29,345	55,877
838	SAN Training/Travel/Tools for Staff	8,000	
<b>General Support Expense Total</b>		<b>37,345</b>	<b>55,877</b>
Depreciation		439,000	154,000
Capital Purchases			
<b>Total Capital Cost</b>		<b>439,000</b>	<b>154,000</b>
NOC		208,402	203,139
Indirect Cost		212,552	235,965
<b>Total Service Costs</b>		<b>3,363,123</b>	<b>3,667,820</b>
<b>Estimated Revenue</b>		<b>3,363,123</b>	<b>3,667,820</b>
<b>Rate</b>		<b>\$0.1922</b>	<b>\$0.1834</b>
		Per GB Per Month	Per GB Per Month

**\*Storage Area Network:** SAN is the disk storage allocated to both virtual and physical servers. Utilization of storage is measured in gigabytes allocated to the server disks.

## Category 19 DistSys Backup-Recovery

Unit of Service	DistSys Backup-Rec	DistSys Backup-Rec
<b>Utilization</b>	<b>39,000,000</b>	<b>35,623,000</b>
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel	172,780	175,982
Fringe Benefits	77,751	95,030
<b>Personal Services</b>	<b>250,532</b>	<b>271,013</b>
107 Deduplication/Replication HW Lease	530,731	802,731
206 Data Domain Server/Storage Maintenance	136,000	177,560
207 DistSys Backup Admin Srvr Maint (TSM Win)	10,000	0
363 EMC Software ELA	482,000	488,288
460 Tivoli Storage Management	193,683	156,809
478 Vranger Software Maintenance	25,000	22,000
503 Deduplication/Replct Purchase-DistBU-Rcvry	221,450	155,000
606 TSM Software Purchase	15,000	7,500
608 Vranger License Enhancement	15,000	15,000
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>1,628,864</b>	<b>1,824,888</b>
842 TSM Training/Travel/Tools for Staff	7,500	7,500
<b>General Support Expense Total</b>	<b>7,500</b>	<b>7,500</b>
Depreciation	45,000	46,114
Capital Purchases	(15,000)	
<b>Total Capital Cost</b>	<b>30,000</b>	<b>46,114</b>
SAN	12,943	22,400
Server Support	10,696	7,000
VM	27,439	32,000
<b>Job Costs Total</b>	<b>51,078</b>	<b>61,400</b>
NOC	139,397	139,103
Indirect Cost	142,173	161,581
<b>Total Service Costs</b>	<b>2,249,543</b>	<b>2,511,599</b>
<b>Estimated Revenue</b>	<b>2,249,543</b>	<b>2,511,599</b>
<b>Rate</b>	<b>\$0.0577</b>	<b>\$0.0705</b>
	Per GB/month	Per GB/month

**\*DistSys Backup and Recovery:** DistSys backup and recovery provides data protection services for virtual and physical servers through backup software and storage infrastructure. Utilization is measured in gigabytes and is based on the amount of backup storage the server uses.

**Category 20 Indirect**

Unit of Service		Indirect	Indirect
		FY20	FY21
<b>Budgeted Costs</b>			
Direct Personnel		1,030,660	1,011,631
Fringe Benefits		463,797	546,281
<b>Personal Services</b>		<b>1,494,457</b>	<b>1,557,912</b>
239	Batteries/UPS Maintenance	52,000	193,000
240	Generator Maintenance	2,000	59,000
808	Internet Expenses	55,000	50,000
802	MS Premier Support and other Support	120,000	145,000
811	Office Supplies, Equipment and Maintenance	75,000	47,000
812	Cell Phones	20,000	35,000
813	Electrical Distribution, Maintenance	20,000	20,000
814	Postage/Inter Agency Mail Delivery	1,500	1,000
816	Racks, Cabinets, Furniture & Building Changes	50,000	50,000
820	Subscriptions & Publications	1,000	1,000
821	Telephone Service and Equipment	60,000	45,000
822	Training & Professional Development	30,000	50,000
823	Travel	10,000	10,000
824	Resource Oversight	50,000	45,000
825	VPN - Access Charge	3,000	3,000
827	SSL Certificates	2,000	1,000
828	Service Deployment Appliance	20,000	-
831	Disaster Recovery Rental (Springnet)	495,000	495,000
832	Disaster Recovery Electric (Springnet)	120,000	120,000
857	Compco Software and Billing Expenses	40,000	35,000
858	Billing System	10,000	12,000
<b>General Support Expense Total</b>		<b>1,236,500</b>	<b>1,417,000</b>
Depreciation		120,000	125,901
Capital Purchases			(150,000)
<b>Total Service Costs</b>		<b>2,850,957</b>	<b>2,950,813</b>

## Category 21 WAS

Unit of Service		WAS	WAS
Utilization		12,360	12,876
<b>Budgeted Costs</b>		<b>FY20</b>	<b>FY21</b>
Direct Personnel		105,337	110,597
Fringe Benefits		48,455	59,723
<b>Personal Services</b>		<b>153,792</b>	<b>170,320</b>
428 Tivoli WAS/ND		168,000	114,696
M05 WAS Encryption - Guardium		18,703	81,694
655 ILMT		3,632	
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>190,335</b>	<b>196,390</b>
845 WAS Training/Travel/Tools for Staff		14,476	5,656
<b>General Support Expense Total</b>		<b>14,476</b>	<b>5,656</b>
Depreciation		50,000	50,357
Capital Purchases			
<b>Total</b>		<b>50,000</b>	<b>50,357</b>
Dist BU Rec		8,687	3,767
SAN		28,308	10,448
VM		137,112	104,769
<b>Job Costs Total</b>		<b>174,108</b>	<b>118,984</b>
NOC		41,275	34,082
Indirect		42,097	39,590
<b>Indirect Cost</b>		<b>83,372</b>	<b>73,672</b>
<b>Total Service Costs</b>		<b>666,082</b>	<b>615,379</b>
<b>Estimated Revenue</b>		<b>666,082</b>	<b>615,379</b>
<b>Rate</b>		<b>\$53.89</b>	<b>\$47.79</b>
		Per JVM Heap Size	Per JVM Heap Size

**\*WebSphere Application Server (WAS):** WAS is an Enterprise IBM Application platform that serves up JAVA Web Applications to users.

## Category 23 SQL

Unit of Service	SQL	SQL
Utilization-Base 37%	40,536	39,216
Utilization-Memory 3%	31,800	27,480
Utilization-Overage 41%	1,754,844	2,506,344
Utilization-License 19%	6,924	5,616
100%		
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel	556,051	548,335
Fringe Benefits	250,223	296,101
<b>Personal Services</b>	<b>806,274</b>	<b>844,435</b>
451 SA Licenses for SQL	762,068	800,171
640 SQL Software	662,477	538,633
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>1,424,545</b>	<b>1,338,804</b>
839 SQL Training /Travel/Tools for Staff	50,000	50,000
<b>General Support Expense Total</b>	<b>50,000</b>	<b>50,000</b>
Depreciation	11,400	11,319
Capital Purchases		
<b>Total Capital Cost</b>	<b>11,400</b>	<b>11,319</b>
AD	16,800	18,876
Dist BU Rec	111,593	16,108
Server Support	-	2,272
SAN	700,000	868,116
VM	445,000	378,640
<b>Job Costs Total</b>	<b>1,273,393</b>	<b>1,284,012</b>
NOC	252,562	222,005
Indirect Cost	257,592	257,879
<b>Total Allocated</b>	<b>510,154</b>	<b>479,884</b>
<b>Total Service Costs</b>	<b>4,075,766</b>	<b>4,008,455</b>
<b>Estimated Revenue</b>	<b>4,075,766</b>	<b>4,008,455</b>
<b>Base Rate</b>	<b>SQL Base (43%) \$37.20</b>	<b>SQL Base (37%) \$37.82</b>
<b>Memory Rate</b>	<b>SQL Memory (4%) \$3.85</b>	<b>SQL Memory (2%) \$4.38</b>
<b>Overage Rate</b>	<b>SQL Overage (30%) \$0.95</b>	<b>SQL Overage (41%) \$0.66</b>
<b>License Rate</b>	<b>SQL License (23%) \$111.84</b>	<b>SQL License (20%) \$135.61</b>

\*SQL: SQL is a Microsoft relational database solution that provides an agency the ability to store its business data for later retrieval and decision making. The rate is broken down as follows:

- **SQL Database Base** - Cost driven by the number of databases
- **SQL Database Overage** – Cost added to the when a database is over 1 gig.
- **SQL Database Memory** – This is an infrastructure cost passed directly to the dedicated application.
- **SQL Database License** – This is a software license cost passed directly to the dedicated application.



## Category 26 Server Support

Unit of Service Utilization	Server Support 4900	Server Support 4440
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel	255,928	224,796
Fringe Benefits	115,168	121,390
<b>Personal Services</b>	<b>371,096</b>	<b>346,187</b>
229 Remote Server Maintenance	6,000	1,500
340 Microsoft Server Operating System Subsc.	5,000	
342 Symantec EndPoint Protection Subsc.-RSS	5,000	500
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>16,000</b>	<b>2,000</b>
<b>Job Costs</b>		
Dist BU Rec	4,729	1,265
MySQL	1,637	2,076
RSS	1,200	1,224
SAN	1,694	250
VM	9,108	820
<b>Total Job Costs</b>	<b>18,368</b>	<b>5,635</b>
NOC	28,720	22,261
Indirect Cost	29,292	25,858
<b>Total Service Costs</b>	<b>463,477</b>	<b>401,941</b>
<b>Estimated Revenue</b>	<b>463,477</b>	<b>401,941</b>
<b>Rate</b>	<b>\$94.59</b>	<b>\$90.53</b>
	Per Server Per	Per Server Per Month

**\*Server Support:** Server Support encompasses the infrastructure management of physical servers, both in the SDC and in remote offices. Infrastructure management includes installing the OS, maintaining the hardware, providing anti-virus and windows updates, and providing troubleshooting services when issues arise.

## Category 27 VDI

Unit of Service		VDI	VDI
Utilization	Standard	57,250	57,252
	Standard-No Office	2,004	2,004
	Basic	9,660	60,000
Budgeted Costs		FY20	FY21
Direct Personnel		-	-
Fringe Benefits		-	-
Personal Services		0	0
243	VDI Server Maintenance	20,000	30,000
244	VDI Storage Maintenance	51,000	55,000
469	VMWare Software Maintenance	129,869	229,869
470	Microsoft VDA Licensing (Subscription)	534,000	534,000
492	Office 365 ProPlus	495,000	592,021
516	VDI End-Point Device	112,500	100,000
517	VDI Server and Upgrades	215,000	535,000
518	VDI Storage and Upgrades	125,000	125,000
609	VMWare View Licensing-GROWTH	277,733	526,665
Hardware/Software Expense & Equipment Total		1,960,102	2,727,555
Depreciation		142,000	72,480
Capital Purchases			
Total Capital Cost		142,000	72,480
Estimated Revenue from Basic user (692 users @ \$11 rate)		(5,000)	
AD		69	99
Dist BU Rec		955	2,987
SAN		40,665	37,299
SQL		9,398	7,332
VM		29,805	43,632
Job Costs Total		80,892	91,349
NOC		154,627	181,916
Indirect Cost		157,707	211,312
Total Service Costs		2,490,328	3,284,611
Total with Office 365 (for NOC/Indirect allocation)		2,490,328	3,284,611
Estimated Revenue		2,490,328	3,284,611
VDI Standard Rate per user per month		\$33.67	\$34.72
An additional charge per month for Office 365		\$8.65	\$10.34
VDI Basic (Pool) Rate per user per month		\$10.33	\$10.58

An additional charge of \$4 per Month extra for every one (1) gb of memory over our standard Configuration.

An additional charge of \$7 per Month extra for every one (1) additional virtual CPU over 2 vCPUs.

**\*Virtual Desktop Infrastructure (VDI):** VDI is the hosting of a desktop operating system within a virtual machine (VM). The VM runs on a hosted, centralized server. Access to a VDI can be achieved with various end-point devices.

## Category 28 sFTP

Unit of Service	sFTP		sFTP
Utili	52,632		43,200
<b>Budgeted Costs</b>	<b>FY20</b>		<b>FY21</b>
Direct Personnel	49,852		49,730
Fringe Benefits	22,416		26,854
<b>Personal Services</b>	<b>72,268</b>		<b>76,584</b>
439 SFTP Software Maintenance	13,606		13,978
Guardium Maint			
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>13,606</b>		<b>13,978</b>
837 SFTP Training/Travel/Tools	1,970		1,200
<b>General Support Expense Total</b>	<b>1,970</b>		<b>1,200</b>
Dist BU Rec	4,426		4,662
SAN	3,599		2,525
SQL	566		2,459
VM	4,313		2,614
<b>Total Job Costs</b>	<b>12,904</b>		<b>12,260</b>
NOC	7,136		6,545
Indirect Cost	7,278		7,602
Total Allocated	14,415		14,147
<b>Total Service Costs</b>	<b>115,162</b>		<b>118,169</b>
<b>Estimated Revenue</b>	<b>115,162</b>		<b>118,169</b>
<b>Rate</b>	<b>\$2.19</b>		<b>\$2.74</b>
	Per Account Per Month		Per Account Per Month

**\*SFTP:** Secure File Transfer is a secure method of sharing files between State Staff and External Entities. This system may use automated process to transfer data from one location to another.

## Category 29 SharePoint

Unit of Service Utilization		SharePoint 36,909	SharePoint 32,400
<b>Budgeted Costs</b>		<b>FY20</b>	<b>FY21</b>
Direct Personnel		151,831	173,820
Fringe Benefits		68,324	93,863
<b>Personal Services</b>		<b>220,155</b>	<b>267,683</b>
401 Axceler ControlPoint		26,208	26,500
481 Software -Maintenance -ShareGate		6,350	6,600
482 Software -Maintenance -MS SelectPlus		3,616	3,800
660 SharePoint Server Licenses			51,000
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>36,174</b>	<b>87,900</b>
840 SharePoint Training /Travel/Tools for Staff		27,000	16,600
848 MobaXterm, MiniTab (software tools)		-	5,400
<b>General Support Expense Total</b>		<b>27,000</b>	<b>22,000</b>
Job Costs			
AD		37	90
Dist BU Rec		41,809	34,000
SAN		6,990	11,000
SQL		222,815	230,000
VM		32,650	51,000
<b>Job Costs Total</b>		<b>304,301</b>	<b>326,090</b>
NOC		41,623	44,273
Indirect Cost		42,452	51,427
<b>Total Service Costs</b>		<b>671,706</b>	<b>799,373</b>
<b>Estimated Revenue</b>		<b>671,706</b>	<b>799,373</b>
<b>Rate</b>		<b>\$18.20</b>	<b>\$24.67</b>
		<b>Per GB Per Month</b>	<b>Per GB Per Month</b>

\*SharePoint: SharePoint provides a web-based platform for file sharing and process management.

### Category 33 SSRS

Unit of Service Utilization for Base	SSRS 1260	SSRS 324	SSRS 1284	SSRS 288
	FY20 Enterprise (40%*)	FY20 Dedicated (60%*)	FY21 Enterprise (40%*)	FY21 Dedicated (60%*)
<b>Budgeted Costs</b>				
Direct Personnel	28,013	42,019	29,075	43,613
Fringe Benefits	12,886	19,329	15,701	23,551
<b>Personal Services</b>	<b>40,899</b>	<b>61,348</b>	<b>44,776</b>	<b>67,164</b>
458 DistSys SSRS Software Maintenance	10,800	16,200	11,200	16,800
885 Neodynamic Barcode	648	972	1,195	1,792
M06 SSRS Encryption- Guardium	241	362	964	1,448
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>11,689</b>	<b>17,534</b>	<b>13,359</b>	<b>20,040</b>
853 SSRS Training/Travel/Tools for Staff	2,389	3,584	2,964	4,446
<b>General Support Expense Total</b>	<b>2,389</b>	<b>3,584</b>	<b>2,964</b>	<b>4,446</b>
<b>Job Costs</b>				
SAN	1,775		1,774	
SSRS - VM	14,335		13,674	
SSRS - Backup	1,617		1,590	
SSRS - Enterprise DB	6,929		8,035	
<b>Job Costs</b>	<b>24,655</b>	<b>-</b>	<b>25,073</b>	<b>-</b>
NOC	4,593	6,889	4,475	6,713
Indirect Cost	4,684	7,026	5,198	7,797
<b>Allocated Costs</b>	<b>9,277</b>	<b>13,915</b>	<b>9,673</b>	<b>14,510</b>
<b>Total Service Costs</b>	<b>88,909</b>	<b>96,381</b>	<b>95,845</b>	<b>106,160</b>
<b>Estimated Revenue</b>	<b>\$88,909</b>	<b>\$96,381</b>	<b>\$95,845</b>	<b>\$106,160</b>
<b>Rate for Base</b>	<b>\$70.56</b>	<b>\$297.47</b>	<b>\$74.65</b>	<b>\$368.61</b>
	Per Enterprise Instance/Mon	Per Dedicated Instance/Mon	Per Enterprise Instance/Mon	Per Dedicated Instance/Mon

**\*SQL Server Reporting Services (SSRS):** SSRS is the Enterprise Reporting tool for the State. The system allows users to create, deploy and manage reports.

## Category 34 JIRA

	JIRA	JIRA
Utilization	12,132	12,360
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel	22,012	4,308
Fringe Benefits	10,125	2,326
<b>Personal Services</b>	<b>32,137</b>	<b>6,635</b>
483 JIRA Software Maintenance plus plugin	14,104	15,483
886 Priority Support	5,000	4,869
	<b>19,104</b>	<b>20,352</b>
886 Priority Support per server	-	
880 JIRA Training/Travel/Tools for Staff	6,326	2,300
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>6,326</b>	<b>2,300</b>
<b>General Support Expense Total</b>		
Dist BU Rec	271	743
SAN	577	1,419
SQL	1,498	1,498
VM	1,093	3,423
	<b>3,439</b>	<b>7,083</b>
NOC	4,321	2,288
Indirect Cost	4,407	2,658
Total Allocated	8,728	4,946
<b>Total Service Costs</b>	<b>69,734</b>	<b>41,316</b>
	<b>69,734</b>	<b>41,316</b>
	<b>\$5.75</b>	<b>\$3.34</b>
	Per user Per Month	Per user Per Month

\*JIRA: JIRA is a software tool that can manage team activity and track issues.

## Category 42 OnBase

Unit of Service Utilization	Per user	OnBase 50,784	OnBase 63,600
<b>Budgeted Costs</b>		<b>FY20</b>	<b>FY21</b>
Direct Personnel		279,756	365,889
Fringe Benefits		125,890	197,580
<b>Personal Services</b>		<b>405,646</b>	<b>563,469</b>
121	OnBase HealthCheck - HyLand Services		80,000
498	Enterprise OnBase Licenses	240,000	225,000
622	New Enterprise OnBase Modules	32,000	16,000
539	Scanner for OnBase	12,500	8,400
M01	Encryption Maintenance	7,700	7,700
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>292,200</b>	<b>337,100</b>
873	Staff Training	26,200	18,000
<b>General Support Expense Total</b>		<b>26,200</b>	<b>18,000</b>
Depreciation		18,167	17,200
Capital Purchases		(12,500)	(16,000)
<b>Total Capital Cost</b>		<b>5,667</b>	<b>1,200</b>
Job Costs			
AD		300	300
Dist BU Rec		2,764	2,800
SAN		14,608	15,000
SQL		20,644	29,000
VDI		1,335	3,500
VM		43,389	47,000
<b>Job Costs Total</b>		<b>83,040</b>	<b>97,600</b>
NOC		57,569	64,009
Indirect Cost		58,716	74,353
<b>Total Service Costs</b>		<b>929,038</b>	<b>1,155,731</b>
<b>Estimated Revenue</b>		<b>929,038</b>	<b>1,155,731</b>
<b>Rate</b>	Per user	<b>\$18.29</b>	<b>\$18.17</b>
		Per User/Month	Per User/Month

**\*OnBase ECM:** OnBase is State of MO standard Enterprise-level Electronic Content Management (ECM) system used for the storage, retrieval and management of electronic content. Billing is based on “named” users.

## Category 43    Web Utility

Unit of Service	Web Utility	Web Utility
Utilization	53,988	44,520
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel		74,933
Fringe Benefits		39,715
<b>Personal Services</b>		114,648
453    SynRecovery software	1,000	1,000
467    Load Balancer Maintenance	115,296	
489    uDeploy software Maintenance	74,425	173,707
494    Tidal Maintenance	44,910	47,985
499    AppViewX Software Maintenance	15,392	15,392
647    uDeploy additional Agents	15,000	
648    Cert Costs	509	18,009
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>266,532</b>	<b>256,093</b>
869    Web Utility Training/Travel/Tools	32,220	5,500
<b>General Support Expense Total</b>	<b>32,220</b>	<b>5,500</b>
Depreciation	90,459	1,158
Capital Purchases		
<b>Total Capital Cost</b>	<b>90,459</b>	<b>1,158</b>
AD	7,887	740
Dist BU Rec	13,954	11,727
SAN	13,065	21,670
SQL	79,451	23,531
VM	71,606	100,336
ZOS E Data Backup	220	-
<b>Total Job Costs</b>	<b>186,183</b>	<b>158,004</b>
NOC	40,757	33,686
Indirect Cost	41,568	39,129
Total Allocated	82,325	72,815
<b>Total Service Costs</b>	<b>657,719</b>	<b>608,218</b>
<b>Estimated Revenue</b>	<b>657,719</b>	<b>608,218</b>
<b>Rate</b>	<b>\$12.18</b>	<b>\$13.66</b>
	Per site per month	Per site per month

Web Utility - is all the secondary systems that Web Sites or App Dev can use to support their system. Some of these are Enterprise SSL Cert Services, Enterprise Logging/Staging Services, Enterprise Scheduling and batch services (Tidal and Batch), and uDeploy.



## Category 44 MySQL

Unit of Service		MySQL Base	MySQL Base
Utilization - Base	97.00%	3,564	3,300
Overage GB	3.00%	6,924	7,392
<b>Budgeted Costs</b>		<b>FY20</b>	<b>FY21</b>
Direct Personnel		36,008	41,554
Fringe Benefits		16,191	22,439
<b>Personal Services</b>		<b>52,198</b>	<b>63,993</b>
468	SQL	107,625	105,197
641	MySQL Software	36,809	22,146
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>144,434</b>	<b>127,343</b>
881	MySQL Training /Travel/Tools for Staff	5,000	8,515
<b>General Support Expense Total</b>		<b>5,000</b>	<b>8,515</b>
Depreciation		37,000	36,544
Capital Purchases			
<b>Total Capital Cost</b>		<b>37,000</b>	<b>36,544</b>
Job Costs			
Dist BU Rec		5,620	11,860
Server Support		1,017	-
SAN		10,139	15,422
VM		22,082	31,896
<b>Job Costs Total</b>		<b>38,858</b>	<b>59,178</b>
NOC		19,655	18,596
Indirect Cost		20,047	21,601
<b>Total Allocated</b>		<b>39,702</b>	<b>40,198</b>
<b>Total Service Costs</b>		<b>317,193</b>	<b>335,771</b>
<b>Estimated Revenue</b>		<b>317,193</b>	<b>335,771</b>
<b>Base Rate</b>		<b>\$86.33</b>	<b>\$98.70</b>
<b>Overage Rate</b>		<b>\$1.37</b>	<b>\$1.36</b>

\***MYSQL:** SQL is an open-source relational database solution that provides an agency the ability to store its business data for later retrieval and decision making. The rate is broken down as follows:

- **MYSQL Database Base** - Cost driven by the number of databases
- **MYSQL Database Overage** – Cost added to the when a database is over 1 gig.

## Category 45 Enterprise Web Hosting

Unit of Service	Enterprise Web Hosting	Enterprise Web Hosting
<b>Utilization</b>	<b>8,880</b>	<b>9,720</b>
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel		-
Fringe Benefits		-
<b>Personal Services</b>	-	-
537 Plesk License Purchase	2,520	5,940
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>2,520</b>	<b>5,940</b>
874 SSL Training/Travel/Tools for Staff	6,018	2,000
<b>General Support Expense Total</b>	<b>6,018</b>	<b>2,000</b>
<b>Job Costs</b>		
Dist BU Rec	3,830	7,735
SAN	12,050	12,754
VM	58,015	65,780
<b>Job Costs Total</b>	<b>73,895</b>	<b>86,269</b>
NOC	5,839	5,927
Indirect Cost	5,955	6,885
Total Allocated	11,794	12,812
<b>Total Service Costs</b>	<b>94,228</b>	<b>107,021</b>
<b>Estimated Revenue</b>	<b>94,228</b>	<b>107,021</b>
<b>Rate</b>	<b>\$10.61</b>	<b>\$11.01</b>
	Per site Per month	Per site Per month

\*Enterprise Web Hosting – is systems that are shared across all agencies. Websites are sharing Web Servers, Software and FTE Resources.

## Category 46 Network Operations Center (NOC)

Unit of Service	NOC	NOC
Budgeted Costs	FY20	FY21
Direct Personnel	1,178,397	1,092,730
Fringe Benefits	530,279	590,074
<b>Personal Services</b>	<b>1,708,676</b>	<b>1,682,805</b>
345 SiteScan	5,000	5,000
349 Lansweeper	911	28,800
351 Kiwi Syslog	291	300
352 Microsoft System Center Suite	7,500	
353 Solarwinds NPM	9,186	9,700
354 Solarwinds SAM	7,397	7,808
355 Solarwinds NTA	5,536	5,843
356 Orion Polling Engines	68,840	55,000
357 Orion Web Server	101	101
361 Logging Maintenance	170,000	104,127
364 Solarwinds WPM	3,450	3,300
491 ITSM Tool Maintenance	201,600	124,000
532 NOC - Desktop Computer Equipment	3,200	3,200
618 Microsoft System Center Suite	20,000	43,000
657 Software Delivery Tool	195,000	50,000
654 Rave Texting	25,000	25,000
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>723,013</b>	<b>465,179</b>
872 NOC Training /Travel/Tools	40,000	50,360
884 ITSM Training	22,000	22,000
<b>General Support Expense Total</b>	<b>62,000</b>	<b>72,360</b>
Depreciation	131,000	82,637
Capital Purchases		
<b>Total Capital Cost</b>	<b>131,000</b>	<b>82,637</b>
AD	80	
Dist BU Rec	5,989	6,000
SAN	69,810	66,000
SQL	733	36,000
VDI	1,340	1,340
VM	92,646	128,000
<b>Total Job Cost</b>	<b>170,598</b>	<b>237,340</b>
<b>Total Service Costs</b>	<b>2,795,286</b>	<b>2,540,321</b>

**\*NOC:** Network Operations Center (NOC) operates 24x7 and uses cutting edge technology, equipment, and tools to monitor critical computing systems and network infrastructure.

## Category 47 Tableau

Unit of Service		Tableau	Tableau
Utilization		1572	2412
<b>Budgeted Costs</b>		<b>FY20</b>	<b>FY21</b>
Direct Personnel		28,395	20,057
Fringe Benefits		13,062	9,226
<b>Personal Services</b>		<b>41,457</b>	<b>29,284</b>
644 Tableau Interactor License Maintenance		34,471	39,340
M03 Tableau (1 Prod - Encryption License)		4,826	4,869
M04 Tableau Desktop Lic & Maintenance		790	395
645 Additional 25 Desktop Interactor Licenses		26,974	26,974
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>67,061</b>	<b>71,578</b>
883 Tableau Training/Tools/travel		3,151	3,360
<b>General Support Expense Total</b>		<b>3,151</b>	<b>3,360</b>
Job Costs			
Dist BU Rec		421	726
SAN		1,039	1,038
VDI		1,281	1,693
VM		5,801	6,999
<b>Job Costs Total</b>		<b>8,542</b>	<b>10,456</b>
NOC		8,515	7,215
Indirect Cost		8,684	8,381
Total Allocated		17,199	15,596
<b>Total Service Costs</b>		<b>137,410</b>	<b>130,274</b>
<b>Estimated Revenue</b>		<b>137,410</b>	<b>130,274</b>
<b>Rate</b>		<b>\$87.41</b>	<b>\$54.01</b>
		Per User Per Month	Per User Per Month

**\*Tableau:** Tableau is the State's Enterprise Statistical Analysis platform. It can be used to connect to any data source and present that data through a browser interface.

## Category 48 DB2LUW

Unit of Service		DB2LUW	DB2LUW
Util Base	66%	5,340	4,980
Memory	2%	3,336	6,552
Overage	16%	117,276	116,940
License	16%	624	456
Total	100%		
<b>Budgeted Costs</b>		<b>FY20</b>	<b>FY21</b>
Direct Personnel		151,329	188,963
Fringe Benefits		68,098	86,923
<b>Personal Services</b>		<b>219,427</b>	<b>275,887</b>
473 DB2 Maintenance		702,778	723,396
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>702,778</b>	<b>723,396</b>
882 DB2 LUW Training/Travel/Tools		42,694	46,210
<b>General Support Expense Total</b>		<b>42,694</b>	<b>46,210</b>
Job Costs			
Dist BU Rec		35,577	39,248
SAN		55,367	62,046
VM		47,318	65,032
<b>Job Costs Total</b>		<b>138,262</b>	<b>166,326</b>
NOC		78,140	76,243
Indirect Cost		79,696	88,564
<b>Total Allocated</b>		<b>157,836</b>	<b>164,807</b>
<b>Total Service Costs</b>		<b>1,260,997</b>	<b>1,376,625</b>
<b>Estimated Revenue</b>		<b>1,260,933</b>	<b>1,376,625</b>
<b>Base Rate</b>		<b>\$155.85</b>	<b>\$182.44</b>
<b>Memory Rate</b>		<b>\$3.78</b>	<b>\$4.20</b>
<b>Overage Rate</b>		<b>\$1.72</b>	<b>\$1.88</b>
<b>License Rate</b>		<b>\$343.54</b>	<b>\$483.03</b>

**\*DB2LUW:** DB2LUW is an IBM relational database solution that provides an agency the ability to store its business data for later retrieval and decision making. The rate is broken down as follows:

- **DB2LUW Database Base** - Cost driven by the number of databases
- **DB2LUW Database Overage** – Cost added to the when a database is over 1 gig.
- **DB2LUW Database Memory** – This is an infrastructure cost passed directly to the dedicated application.
- **DB2LUW Database License** – This is a software license cost passed directly to the dedicated application.

## Category 49 BOX

Unit of Service	BOX	BOX
	530	1142
<b>Utilization</b>	<b>6,360</b>	<b>13,704</b>
<b>Budgeted Costs</b>	<b>FY20</b>	<b>FY21</b>
Direct Personnel	10,673	47,974
Fringe Benefits	4,910	22,068
<b>Personal Services</b>	<b>15,583</b>	<b>70,042</b>
538 Box software subscription For Enterprise	95,591	181,312
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>95,591</b>	<b>181,312</b>
887 BOX Training/Travel/Tools for Staff	7,020	800
<b>General Support Expense Total</b>	<b>7,020</b>	<b>800</b>
Job Costs		
NOC	8,372	15,865
Indirect Cost	8,539	18,428
Total Allocated	16,911	34,293
<b>Total Service Costs</b>	<b>135,104</b>	<b>286,447</b>
<b>Estimated Revenue</b>	<b>135,104</b>	<b>286,447</b>
<b>Rate</b>	<b>\$21.24</b>	<b>\$20.90</b>
	<b>Per User Per Month</b>	<b>Per User Per Month</b>

\***BOX.com:** BOX.com is a cloud-based file collaboration/sharing/storage solution, which allows internal and external users access to data.

## Five Year Rate Summary

Num.	Category Description	FY21	FY20	FY19	FY18	FY17
1	Laser Feet Printed	0.043	0.045	0.043	0.030	0.0287
1	Lines (Impact) Printed/1000	0.519	0.532	0.453	0.354	0.3422
1	Laser Feet Printed/Duplex	0.035	0.0357	0.034	0.024	0.0230
2	CPU Service Units/1000	0.0060	0.0069	0.0071	0.0058	0.0066
3	CICS Transactions	0.0011	0.0009	0.0009	0.0009	0.0010
5	zOS Enterprise Data Backup/GB Day	0.0057	0.0055	0.0040	0.0032	0.0042
7.1	AD User ID per Month	1.10	1.01	1.43	1.28	0.37
7.2	AD & Exchange Mailbox per Month	6.23	5.92	6.40	5.72	4.75
8	zOS Data Storage/GB Day	0.068	0.085	0.085	0.086	0.0455
10	zOS IDMS Run Units	0.0032	0.0040	0.0035	0.004	0.0043
11	zOS DB2 Service Units/1000	0.0049	0.0037	0.0033	0.0030	0.0024
15	VM per Image per Month	61.83	72.63	82.77	103.40	105.33
16	SAN per 1GB per Month	0.1834	0.1922	0.1971	0.2481	0.2450
19	DistSys Backup-Recovery/GB Month	0.0705	0.0577	0.0517	0.0020	0.0018
21	WAS per JVM Heap Size	47.79	53.89	63.94	45.48	42.46
23	SQL per Base Unit per Month	37.82	37.20	35.42	28.37	28.48
23	SQL Memory per GB per Month	4.38	3.85	4.82	4.77	4.30
23	SQL Overage per GB per Month	0.66	0.95	0.90	0.87	0.98
23	SQL License per License per Month	135.61	111.84	121.98	98.64	106.76
26	Server Support/Month	90.53	94.59	100.31	167.84	120.97
27	VDI per Virtual Desktop per Month	34.72	33.67	29.33	43.64	32.84
27	VDI - Office 365	10.34	8.65	9.06		
27	RDP Pool Users VDI per Month	10.58	10.33	10.91	10.91	8.21
28	sFTP Units	2.74	2.19	1.78	1.60	0.00
29	SharePoint/GB/Month	24.67	18.20	3,244.22	1,753.78	1,931.20
33	SSRS per Enterprise Instance	74.65	70.56	78.89	67.07	107.71
33	SSRS Per Dedicated Instance	368.61	297.47	359.93		
34	JIRA	3.34	5.75	4.68	4.16	5.46
42	OnBase ECM	18.17	18.29	18.86	12.39	22.57
43	Web Utility	13.66	12.18	8.98	9.08	27.04
44	MySQL Base	98.70	86.33	88.78	39.24	31.72
44	MySQL Memory				3.44	3.15
44	MySQL Overage	1.36	1.37	5.71	1.38	0.75
44	MySQL License			-	286.57	315.28
45	Web Hosting	11.01	10.61	12.60	5.08	
47	Tableau	54.01	87.41	77.68	92.39	87.47
48	DB2LUW Base	182.44	155.85	133.06	31.10	
48	DB2LUW Memory	4.20	3.78	3.11	4.70	
48	DB2LUW Overage	1.88	1.72	1.43	0.89	
48	DB2LUW License	483.03	343.54	309.10	191.49	
49	BOX	20.90	21.24	21.21	20.38	

Rate	\$ 0.0069	\$ 0.0060	\$ 0.0009	\$ 0.0011	\$ 0.0752	\$ 0.0684	\$ 0.0037	\$ 0.0049	\$ 0.0055	\$ 0.0057	\$ 53.89	\$ 47.79	\$ 0.0040	\$ 0.0032
	CPU	CPU	CICS	CICS	Z Data Strg	Z Data Strg	ZOS DB2	ZOS DB2	ZOS Data BU	ZOS Data BU	WAS	WAS	ZOS IDMS	ZOS IDMS
Agency	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21
Senate	258	153	70	20	-	-	358	114	-	-	-	-	-	-
House Rep	18	270	118	71	-	-	215	180	-	-	-	-	-	-
Legis Rsrch	29	19	14	8	-	-	24	13	-	-	-	-	-	-
SOS	1,402	1,588	326	456	6	5	770	642	0	0	-	-	0	-
Auditor	818	338	44	45	34	16	105	80	200	682	-	-	-	-
Treasurer	50	320	100	121	1	1	71	130	3	9	-	-	91	98
AGO	528	287	190	154	-	-	218	187	-	-	-	-	-	-
OA	616,504	600,000	266,452	350,000	132,941	175,000	178,649	200,000	35,373	96,371	14,539	574	33	-
SDC/Grow	824	-	5,606	6,000	135,879	178,462	97,063	98,000	256,753	310,000	227	-	148,202	68,969
AG	1,085	761	337	347	-	-	313	373	-	-	-	-	-	-
DCI	2,190	1,778	322	351	2	2	903	1,349	8	25	-	-	25	1
MDC	-	-	625	615	-	-	452	1,104	-	-	-	-	643	129
DED	12,019	7,670	575	166	1,385	1,223	1,404	473	168	541	-	-	149	83
DESE	7,522	4,641	1,519	1,375	-	-	2,521	3,263	-	0	-	-	-	-
HE	-	2,105	100	254	-	-	234	1,075	-	-	44,405	42,058	-	31
DHEWD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DHSS	83,372	112,878	23,887	20,585	678	604	16,161	18,736	1,670	5,126	-	-	52,096	33,424
MODOT	17,335	21,409	5,590	5,779	17	16	7,674	8,704	1	4	-	-	160	55
DOLIR	11,731	6,149	454	426	5,461	68	752	945	18,111	552	176,436	162,495	1,195	802
DMH	98,247	126,366	5,597	6,478	3,855	10,413	43,218	47,726	2,131	6,850	-	-	203	79
DNR	35,852	24,339	1,677	1,380	771	685	12,441	14,859	1,430	4,364	81,590	71,689	-	-
DPS/MSHP	130,975	87,768	260,541	205,995	646	554	14,233	17,503	71	218	-	-	75,871	40,261
DOR	1,315,963	1,353,833	119,904	75,433	132,229	120,395	432,980	398,426	81,344	280,205	47,100	47,793	459,059	630,000
DSS	4,485,627	4,875,346	1,215,532	1,439,492	428,366	403,096	2,153,366	2,313,659	120,979	384,883	-	-	724,168	596,638
DOC	20,581	17,328	9,054	9,280	-	-	6,687	9,921	-	-	301,785	290,771	-	-
Other	22	14,407	496	36,932	-	0	6,700	3,965	1	4	-	-	50,599	17,114
Total	6,842,950	7,259,752	1,919,128	2,161,762	842,270	890,541	2,977,512	3,141,426	518,244	1,089,833	666,082	615,379	1,512,495	1,387,683



Rate	mult rates	mult rates	\$ 0.0577	\$ 0.0705	\$ 1.01	\$ 1.095	\$ 5.92	\$ 6.23	\$ 0.1922	\$ 0.1834	\$ 69.90	\$ 61.83	\$ 4.00	\$ 4.00
	Print	Print	BackUp Rec	BackUp Rec	AD	AD	Exchange	Exchange	SAN	SAN	VM	VM	VM mem	VM mem
Agency	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21
Senate		-	-	-	12	13			-	-	-	-	-	-
House Rep		-	-	-	50	66			-	-	-	-	-	-
Legis Rsrch		-	-	-	16	-			-	-	-	-	-	-
SOS		-	-	-	151	197			-	-	-	-	-	-
Auditor	7,188	51	509	548	813	762			254	220	2,615	2,226	672	864
Treasurer		-	10,669	12,701	573	552			12,282	10,497	13,945	11,129	9,600	11,280
AGO		-	-	-	2,239	4,561			69	-	1,743	-	96	-
OA	13,927	-	79,640	100,000	34,696	30,000	158,891	149,437	222,318	200,000	235,474	217,379	96,800	107,760
SDC/Grow	-	15,560	314,727	223,962	68,021	70,935	19,713	27,646	-	-	-	-	-	-
AG		-	19,431	21,048	6,429	6,941	31,920	33,250	12,727	14,080	3,486	2,968	480	672
DCI		-	41,379	55,903	9,153	12,251	52,060	54,470	33,598	37,735	15,761	12,612	2,768	2,400
MDC		-	-	-	199	210	-	-	-	-	-	-	-	-
DED	863	435	27,164	21,751	12,269	7,059	51,125	25,927	27,567	11,683	19,030	8,161	2,176	576
DESE		-	77,161	58,819	24,402	28,814	110,158	118,304	51,987	31,968	51,278	35,612	51,288	49,488
HE		-	75,515	16,584	1,672	1,827	5,766	6,650	2,429	18,387	-	1,484	96	96
DHEWD		-	-	2,634	-	3,930	-	20,174	-	825	1,743	4,451	-	5,184
DHSS		1,400	139,812	197,265	50,708	58,917	226,047	242,835	90,933	73,961	104,445	71,223	23,536	24,048
MODOT		-	52,240	60,000	1,155	2,274	-	-	106,202	308,880	141,342	186,219	71,048	80,000
DOLIR	209,659	353,372	141,900	121,280	11,593	13,987	59,638	63,884	101,666	90,299	60,140	53,417	26,336	39,168
DMH		-	237,368	302,807	179,919	202,936	523,087	610,202	108,051	84,154	135,532	104,609	35,328	28,560
DNR		-	148,134	140,319	34,470	34,178	137,343	159,076	140,905	144,461	57,089	48,966	23,408	27,072
DPS/MSHP		-	14,089	20,572	38,367	36,465	139,486	201,964	24,033	22,907	23,097	17,806	4,256	3,936
DOR	231,693	250,000	510,433	606,878	35,911	37,438	127,658	148,765	198,113	193,129	294,161	275,248	190,384	60,000
DSS	1,703,482	1,353,304	325,408	350,992	134,369	153,011	632,842	709,154	736,811	789,809	148,606	112,028	127,792	60,000
DOC		-	32,137	45,844	162,489	166,379	928,141	908,727	55,627	75,170	27,891	31,160	4,800	5,000
Other		6	1,826	1	5,411	4,141	11,224	2,540	15,207	-	6,101	-	1,056	-
<b>Total</b>	<b>2,166,812</b>	<b>1,974,128</b>	<b>2,249,543</b>	<b>2,359,908</b>	<b>815,085</b>	<b>877,846</b>	<b>3,215,100</b>	<b>3,483,006</b>	<b>1,940,780</b>	<b>2,108,167</b>	<b>1,343,480</b>	<b>1,196,697</b>	<b>671,920</b>	<b>506,104</b>

Rate	\$ 7.00	\$ 7.00	\$ 94.59	\$ 90.53	\$42.32	\$44.85	\$ 37.24	\$ 37.82	\$ 18.20	\$ 24.67			\$ 5.75	\$ 3.34
	VM CPU	VM CPU	Srvr Sprt	Srvr Sprt	VDI	VDI	SQL Total	SQL Total	Share PT	Share PT	SSRS	SSRS	JIRA	JIRA
Agency	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21
Senate	-	-	-	-	-	-	-	-	-	-	-	-	-	-
House Rep	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Legis Rsrch	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SOS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Auditor	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Treasurer	1,008	672	-	-	-	-	-	-	-	-	-	-	-	-
AGO	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OA	27,608	22,400	70,751	69,000	451,042	475,000	301,805	350,000	91,372	175,000	27,096	30,000	7,174	7,500
SDC/Grow	-	-	73,968	73,968	-	100,000	-	68,796	-	-	-	-	-	3,209
AG	-	-	1,135	1,086	12,188	12,503	49,542	38,237	-	-	17,782	18,811	483	281
DCI	420	504	-	-	88,105	98,612	46,202	33,856	2,213	567	-	-	-	-
MDC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DED	378	84	10,026	9,777	36,689	22,853	73,300	25,964	44,120	2,484	3,387	3,583	1,977	281
DESE	2,352	5,964	5,675	9,777	14,344	19,780	249,450	214,698	11,579	14,931	16,819	20,381	5,001	2,607
HE	-	-	-	-	1,016	1,076	2,069	1,815	3,478	7,665	-	-	1,334	762
DHEWD	-	3,024	-	-	-	12,503	-	26,629	-	-	-	-	-	-
DHSS	4,886	4,872	14,377	21,727	211,759	223,654	228,238	175,445	42,768	61,680	3,387	3,583	-	-
MODOT	17,080	20,000	-	-	-	-	-	-	-	-	-	-	-	-
DOLIR	2,856	4,368	2,270	4,345	13,960	72,607	93,625	61,271	738	3,831	3,387	3,583	9,749	5,054
DMH	7,868	6,888	28,187	21,727	40,244	37,150	934,008	822,639	73,641	74,016	21,235	25,700	-	-
DNR	6,692	8,064	13,810	13,036	36,181	36,287	69,826	66,090	19,368	29,606	-	-	15,290	8,063
DPS/MSHP	1,344	1,596	10,215	9,777	30,843	45,168	47,905	52,742	184	14,803	-	-	-	-
DOR	31,514	11,000	4,540	7,000	66,900	105,807	1,222,751	1,250,000	48,515	60,000	88,810	92,327	-	-
DSS	36,176	36,288	141,881	120,000	1,154,456	1,397,945	241,322	164,131	333,730	345,408	3,387	3,583	28,728	16,928
DOC	140	672	79,831	89,079	120,991	59,409	20,361	32,493	-	-	-	-	-	-
Other	140	-	6,810	-	3,555	4,968	8,555	1,362	-	-	-	-	-	-
<b>Total</b>	<b>140,462</b>	<b>126,396</b>	<b>463,477</b>	<b>401,941</b>	<b>2,282,272</b>	<b>2,725,323</b>	<b>3,588,958</b>	<b>3,386,166</b>	<b>671,706</b>	<b>789,992</b>	<b>185,291</b>	<b>201,550</b>	<b>69,734</b>	<b>44,684</b>

Rate	\$ 18.29	\$18.17					\$ 87.41	\$ 54.01	\$ 13.71	\$ 13.66	\$ 10.61	\$ 11.01	\$ 2.19	\$ 2.74
	OnBase	OnBase	MySQL	MySQL	DB2LUW	DB2LUW	Tableau	Tableau	Web Utility	Web Utility	Enterprise WebHosting	Enterprise WebHosting	sFTP	sFTP
Agency	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21
Senate	-	-	-	-	-	-	-	-	-	-	-	-	-	-
House Rep	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Legis Rsrch	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SOS	-	-	-	-	-	-	-	-	-	-	-	-	26	33
Auditor	-	-	-	-	-	-	-	-	-	-	-	-	232	525
Treasurer	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AGO	-	-	345	-	-	-	-	-	-	-	-	-	179	328
OA	20,416	28,000	231,388	275,000	16,832	19,000	-	-	58,014	58,000	29,393	35,000	12,100	-
SDC/Grow	-	-	-	-	-	-	-	-	13,986	-	-	-	13,496	13,765
AG	146	1,308	-	-	3	-	-	-	12,231	9,345	6,324	4,624	2,814	3,447
DCI	14,013	69,562	-	2,369	-	-	-	-	3,314	2,951	2,886	2,378	7,457	4,366
MDC	-	-	-	-	-	-	-	-	-	-	-	-	109	164
DED	10,245	3,053	17,567	3,741	-	-	1,049	-	6,457	9,017	658	264	3,510	4,234
DESE	14,123	12,648	-	-	-	-	-	-	30,773	23,607	1,443	2,510	1,890	3,151
HE	7,903	5,670	-	-	-	31,201	-	-	25,559	29,345	318	264	1,659	2,035
DHEWD		5,452		-	18,702	-			-	-		-		66
DHSS	-	-	22,618	8,290	-	14,187	-	-	288,852	208,860	191	1,189	3,602	3,282
MODOT	-	-	-	-	-	-	-	-	-	-	-	-	2,950	5,088
DOLIR	16,428	38,379	9,324	9,475	314,084	466,504	-	-	18,883	24,263	1,146	1,586	4,656	4,005
DMH	34,832	32,273	3,328	3,337	-	-	-	1,944	28,776	31,313	14,452	15,327	1,440	1,477
DNR	7,647	7,850	5,649	3,553	299,239	356,498	-	-	15,789	12,132	5,815	4,757	7,811	8,206
DPS/MSHP	4,830	4,143	4,704	3,599	-	-	-	-	8,455	9,672	6,027	6,474	2,709	2,265
DOR	121,069	241,086	-	-	-	-	20,979	58,980	85,790	109,840	23,642	27,086	24,318	22,000
DSS	677,387	693,657	1,381	-	368,438	396,309	113,460	69,350	52,361	63,445	849	1,718	22,016	24,093
DOC	-	-	15,017	10,017	13,092	26,499	-	-	8,479	10,984	1,082	1,057	1,978	2,626
Other	-	-	5,870	-	-	-	-	-	-	-	-	-	210	263
<b>Total</b>	<b>929,039</b>	<b>1,143,080</b>	<b>317,193</b>	<b>319,381</b>	<b>1,030,390</b>	<b>1,310,197</b>	<b>135,487</b>	<b>130,274</b>	<b>657,719</b>	<b>602,773</b>	<b>94,228</b>	<b>104,234</b>	<b>115,162</b>	<b>105,419</b>

Rate	21.24	20.90			
	BOX	BOX	Annual	Annual	Difference
Agency	FY20	FY21	FY20 Total	FY21 Total	
Senate	-	-	705	300	(404)
House Rep	-	-	404	587	182
Legis Rsrch	-	-	84	40	(44)
SOS	-	-	2,694	2,921	227
Auditor	-	-	13,490	6,357	(7,133)
Treasurer	-	-	48,394	47,509	(884)
AGO	-	-	5,611	5,517	(94)
OA	26,214	36,806	3,477,116	3,807,227	330,110
SDC/Grow	-	87,000	1,148,465	1,346,272	197,807
AG	2,549	3,512	181,359	173,592	(7,767)
DCI	2,039	25,835	324,782	419,876	95,095
MDC	-	-	2,035	2,221	187
DED	15,252	11,036	380,630	182,120	(198,510)
DESE	2,889	7,525	733,954	669,863	(64,091)
HE	977	8,528	194,977	178,912	(16,064)
DHEWD				84,872	84,872
DHSS	21,923	50,166	1,655,973	1,637,938	(18,035)
MODOT	-	-	422,911	698,429	275,518
DOLIR	5,736	7,859	1,322,514	1,613,974	291,460
DMH	2,592	3,261	2,563,375	2,608,231	44,856
DNR	6,330	14,799	1,184,772	1,240,326	55,554
DPS/MSHP	1,699	4,515	844,727	810,704	(34,023)
DOR	2,294	2,508	5,940,193	6,465,176	524,983
DSS	1,614	15,000	16,203,754	16,889,265	685,511
DOC	5,396	7,525	1,815,643	1,799,941	(15,702)
Other	3,356	-	127,162	85,703	(41,459)
<b>Total</b>	<b>100,861</b>	<b>285,875</b>	<b>38,595,723</b>	<b>40,777,875</b>	<b>2,182,152</b>